VIRGINIA

Science and Engineering Profile

VA	U.S.	Rank		VA	U.S.	Rank
13,682 2,901	453,928 86,738	10 10	Total R&D performance, 1995 (millions) Industry R&D, 1995 (millions)	\$3,897 \$1,577	\$177,210 \$130,332	14 19
19%	25%		Academic R&D, 1995 (millions) of which, in life sciences in engineering in environmental sciences	17%	16%	, D
592	35,379	19	Higher education current-fund expenditures, 1995 (millions)	\$4,289	\$182,602	12
13,014	436,328	10	Number of SBIR awards, 1990-1996 Patents issued to state residents, 1996	1,413 859	26,399 61,099	3 21
6,675 3,389	269,067 135,528	12 12	Gross state product, 1994 (billions) of which, agriculture	\$177.7 1%	\$6,876.0 2%	13
\$24,925	\$24,231	15	manufacturing, mining, construction transportation, communication, utilities	9%	9%	
\$50,302 \$3,603	\$1,368,858 \$67,080	7 5	finance, insurance, real estate services	17% 19%	19% 20%	, , ,
	13,682 2,901 634 25% 19% 16% 592 13,014 6,675 3,389 \$24,925	13,682	13,682 453,928 10 2,901 86,738 10 634 27,230 14 25% 23% 19% 25% 16% 13% 592 35,379 19 13,014 436,328 10 6,675 269,067 12 3,389 135,528 12 \$24,925 \$24,231 15 \$50,302 \$1,368,858 7	13,682 453,928 10 Total R&D performance, 1995 (millions) 2,901 86,738 10 Industry R&D, 1995 (millions) 634 27,230 14 Academic R&D, 1995 (millions) 25% 23% of which, in life sciences in engineering in environmental sciences 19% 25% higher education current-fund expenditures, 1995 (millions) 592 35,379 19 Higher education current-fund expenditures, 1995 (millions) Number of SBIR awards, 1990-1996 Patents issued to state residents, 1996 6,675 269,067 12 3,389 135,528 12 \$24,925 \$24,231 15 Gross state product, 1994 (billions) transportation, communication, utilities wholesale and retail trade finance, insurance, real estate	13,682 453,928 10 Total R&D performance, 1995 (millions) \$3,897 2,901 86,738 10 Industry R&D, 1995 (millions) \$1,577 634 27,230 14 Academic R&D, 1995 (millions) \$447 25% 23% of which, in life sciences 52% 19% 25% in engineering 17% 16% 13% Higher education current-fund expenditures, 1995 (millions) \$4,289 13,014 436,328 10 Number of SBIR awards, 1990-1996 Patents issued to state residents, 1996 1,413 6,675 269,067 12 Gross state product, 1994 (billions) \$177.7 \$24,925 \$24,231 15 Gross state product, 1994 (billions) \$177.7 \$50,302 \$1,368,858 7 manufacturing, mining, construction, trinsportation, communication, utilities wholesale and retail trade finance, insurance, real estate services 17% \$3,603 \$67,080 5 867,080 5	13,682 453,928 10 Total R&D performance, 1995 (millions) \$3,897 \$177,210 2,901 86,738 10 Industry R&D, 1995 (millions) \$1,577 \$130,332 634 27,230 14 Academic R&D, 1995 (millions) \$447 \$21,606 25% 23% of which, in life sciences 52% 55% 19% 25% in engineering 17% 16% 16% 13% Higher education current-fund expenditures, 1995 (millions) \$4,289 \$182,602 13,014 436,328 10 Number of SBIR awards, 1990-1996 Patents issued to state residents, 1996 1,413 26,399 6,675 269,067 12 Gross state product, 1994 (billions) \$177.7 \$6,876.0 3,389 135,528 12 of which, agriculture manufacturing, mining, construction transportation, communication, utilities wholesale and retail trade finance, insurance, real estate finance, insurance, real estate services 14% 16% \$50,302 \$1,368,858 7 finance, insurance, real estate services 19% 20% \$3,603 \$67,080 5 services 19% 20%

Rankings and totals are based on data for the 50 states, D.C., and Puerto Rico.

 $\label{eq:second_problem} \mbox{Data on S\&E postdoctorates and S\&E graduate students include health fields.}$

Federal Obligations for Research and Development in Virginia by Agency and Performer: Fiscal Year 1995

[Thousands of Dollars]

	Total	Federal intramural	All FFRDCs	Industrial firms	Universities & colleges	Other nonprofits	State & local government	State rank
Total, all agencies	3,603,023	1,580,530	236,503	1,534,313	206,554	41,651	3,472	5
Department of Agriculture	12,129	787	0	0	10,074	1,177	91	37
Department of Commerce	36,758	5,384	0	27,404	3,801	50	119	9
Department of Defense	2,549,556	1,244,189	168,120	1,097,499	31,792	7,956	0	4
Department of Energy	93,285	9,704	59,031	12,364	7,257	4,929	0	14
Dept. of Health & Human Services	146,354	1,306	0	36,964	98,639	8,209	1,236	20
Department of the Interior	51,152	40,663	0	9,873	567	49	0	1
Department of Transportation	55,657	9,592	9,088	32,991	1,728	250	2,008	4
Environmental Protection Agency	33,901	0	0	31,853	1,165	883	0	4
Nat'l Aeronautics & Space Admin.	563,187	267,607	0	265,384	20,846	9,332	18	4
National Science Foundation	61,044	1,298	264	19,981	30,685	8,816	0	11
State rank	5	4	6	6	19	14	23	

Federal R&D obligations are as reported by funding agencies.

FFRDC = federally funded research and development center

SBIR = small business innovation research

na = not applicable